Check List the journal of biodiversity data

NOTES ON GEOGRAPHIC DISTRIBUTION

Check List 15 (2): 485–488
https://doi.org/10.15560/15.2.485

PENSOFT

New record of *Tantilla alticola* (Boulenger, 1903) (Serpentes, Colubridae) for the Central Cordillera in the department of Tolima, Colombia

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Abstract
We report for the first time the presence of *Tantilla alticola* in the department of Tolima, Colombia. This report represents the southernmost distribution point for this species in the Central Cordillera of the Colombian Andes.

Keywords
Distribution, diversity, leaf-litter snakes, morphology, taxonomy.

Academic editor: Rafael de Fraga | Received 20 Novmber 2018 | Accepted 25 February 2019 | Published 14 June 2019

Citation: Parra-Hernández RM, Zambrano DV, Bernal MH (2018) New record of *Tantilla alticola* (Boulenger, 1903) (Serpentes, Colubridae) for the Central Cordillera in the department of Tolima, Colombia. Check List 15 (3): 485–488. https://doi.org/10.15560/15.3.485

Introduction

The genus *Tantilla* Baird & Girard, 1853 is considered one of the richest of the family Colubridae, as it is currently composed by 66 species (Wilson 1982, Townsend et al. 2013, Wilson and Mata-Silva 2015, Uetz et al. 2018). The genus is distributed in a wide latitudinal range from the southeastern and southcentral United States to northern Argentina and Uruguay, with 1 species in Trinidad and Tobago (Wilson 1982, Vera-Pérez et al. 2015). Colombia harbors 6 species: *T. alticola* Boulenger, 1903, *T. melanocephala* Linnaeus, 1758, *T. nigra* Boulenger, 1914, *T. reticulata* Cope, 1860, *T. semicincta* Duméril, Bibron & Duméril, 1854, and *T. supracincta* Peters, 1863 (Hurtado-Gómez et al. 2015), all of which live in the lowlands (less than 1,500 m altitude), although *T. alticola* and *T. melanocephala* can also be found in the highlands up to 2,740 m altitude (Wilson and Mata-Silva 2015).

Particularly, *Tantilla alticola* is a species distributed from Nicaragua to northwestern Colombia and Ecuador (Wilson 1982, Myers et al. 2013, Pazmiño-Otamendi 2017). In Colombia, this species has been reported in the departments of Antioquia (Wilson 1982), Caldas (Rojas-Morales et al. 2018), Chocó (Castaño-M et al. 2004), Nariño (Mueses-Cisneros and Cepeda-Quilindo 2006) and Valle del Cauca (Vanegas-Guerrero et al. 2015), between 91 and 2,743 m altitude (Fig. 1). Herein, we record 2 new localities for this species in the department of Tolima, Colombia.

Methods

Two snakes were found dead by Ronald Mauricio Parra-Hernandez, one of them on 16 December 2016 in the municipality of Fresno and the other one on 25 November 2017 around the School Normal Superior, municipality of Falan, both places located in the department

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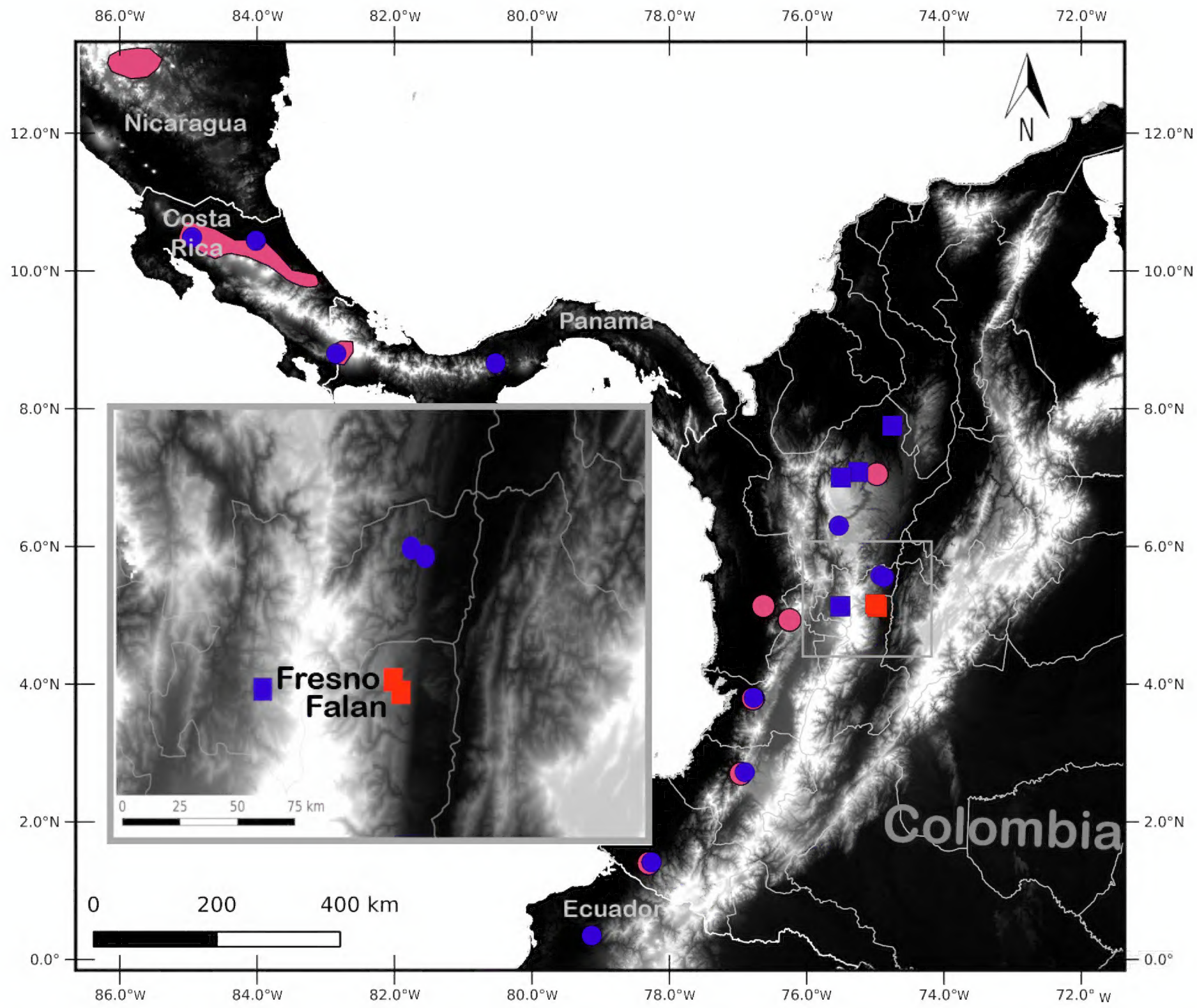

Figure 1. Geographic distribution of *Tantilla alticola*. Blue circles indicate locations previously reported by Myers et al. (2013), Vanegas-Guerrero et al. (2015), Vera-Perez et al. (2015) and Rojas-Morales et al. (2018). Purple dots and polygons: data from Center for Biodiversity, Temple University, and IUCN (2017). Blue squares: data from Museo de La Salle (MLS). Red squares: new records for the department of Tolima.

of Tolima, Central Cordillera of Colombia. The specimens were rinsed with water, fixed in 10% formalin and preserved in 70% ethanol. Thereafter, the 2 specimens were housed in the herpetological collection of the Universidad del Tolima (CZUT-R), where the snakes were identified as *Tantilla alticola*. The species identification was based on the taxonomic keys and description of Wilson (1987), Savage (2002) and Wilson and Mata-Silva (2015). Additionally, the snake specialist John D. Lynch, from Universidad Nacional de Colombia, confirmed the identity of this species. The sex of the 2 individuals was determined by gonadal examination.

Results

New records. 1) Colombia: department of Tolima: municipality of Fresno, La Sierra (05°10′08″ N, 075°00′02″ W; elev. 1,082 m). A female (Fig. 2), SVL: 199.33 mm, tail truncated with a remaining length of 29.88 mm (CZUT-R 0489). 2) Colombia: department of Tolima: municipality of Falan, Pie de Cuesta (05°07′24″ N, 074°58′16″ W; elev. 1,131 m). A female, probably a juvenile or subadult, SVL: 108.42 mm, tail truncated with a remaining length of 25.78 mm (CZUT-R 0503). These 2 individuals were located on logging roads next to small patches of forests and agricultural zones.

Figure 2. Dorsal view of adult female of *Tantilla alticola* from Fresno (Tolima). Photograph by Juan S. Forero.

Figure 3. Cephalic scaling differences between *Tantilla alticola* (**A, B**) and *Tantilla melanocephala* (**C, D**). **A.** Lateral view showing second supralabial scale separated from the prefrontal by the postnasal and preocular scales. **B.** Ventral view showing first pair of infralabials separated by the mental scale. **C.** Lateral view showing second supralabial scale in contact with the prefrontal. **D.** First pair of infralabials in contact. Photographed by Juan S. Forero and edited by authors.

Identification. The individuals had the typical color and diagnostic characters of the species, such as a uniform dark brown color on the dorsal and lateral scales extending to the tail, pale snout, cream venter, preocular and postocular pale spots on supralabials, and a distinct nuchal band of cream color (Wilson 1986, 1987, Savage 2002, Wilson and Mata-Silva 2015) (Fig. 3). In addition, they presented the following morphological characteristics: ventral scales 138, dorsal scale rows 15–15–15, supralabials 7 (3–4), infralabials 6 (1–4), postoculars 2, preocular 1, temporal scales 1+1, loreal absent, cloacal scute and nasal scale divided. Particularly, these specimens have the second supralabial scale separated from the prefrontral scale by the postnasal and preocular scales (Fig. 3A), and the first pair of infralabials separated by the mental scale (Fig. 3B).

Discussion

The other species of *Tantilla* recorded in the department of Tolima are *T. melanocephala* (Linnaeus 1758) and *T. semicincta* (Duméril, Bibron & Duméril 1854), which are noticeably different from *T. alticola*, based on color pattern. For instance, *T. melanocephala* has a dark band on the neck, a middorsal dark stripe, and a cream venter. In addition, some specimens of *T. melanocephala* from Tolima (e.g., CZUT-R 0504; 0505) have the second supralabial and prefrontal scales in contact as well as the first infralabials (Fig. 3C, D) (separated in *T. alticola*). On the other hand, *T. semicincta* has black crossbands on the pale color of the body or a pair of dark longitudinal dorsolateral lines enclosing a pale middorsal line (Wilson 1976, 1987). Furthermore, this species is distributed only in lowland dry forests from near sea level to 950 m altitude (Ortega et al. 2016).

Tantilla alticola has been reported for the Central Cordillera of Colombia in the type-locality, Santa Rita, north of Medellin, department of Antioquia, Colombia (Wilson 1987) and recently in the municipalities of La Victoria and Norcasia (department of Caldas) (Rojas-Morales et al. 2018) (Fig. 1). However, we have found 4 more records of *T. alticola* in the collection of the Museum of Natural Sciences, Universidad de La Salle, Bogotá, Colombia, 3 for the department of Antioquia, municipality of Campamento (MLS 2209), Segovia (MLS 1237) and Yarumal (MLS 1817), and 1 for the department of Caldas, municipality of Pueblo Rico (MLS 1239). Therefore, this new report in the department of Tolima extends the distribution of this species in the Andean mountains and represents the southernmost record for the Central Cordillera in Colombia.

Acknowledgments

This work was supported by the project Snakes from the North of department of Tolima (Project Cultura Científica) to Ronald Mauricio Parra, and Fondo de Investigaciones de la Universidad del Tolima to Manuel Hernando Bernal. We thank John D. Lynch for his valuable help to confirm the identity of this species, and Fernando Sarmiento Parra for allowing us access to the Museo de La Salle (MLS).

Authors' Contributions

RMP, DZ and MHB wrote the text; RMP collected the specimens in the field; RMP, DZ, and MHB examined the specimens; and DZ and RMP drew the map and figures.

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